

Nico D'Cotta

Backend Software Engineer

📍 London, UK
✉ nico@dcotta.eu

🌐 nico.dcotta.eu
🔗 github.com/cottand
🌐 linkedin.com/in/ndcotta




EXPERIENCE

- 11/2023 – today **Backend Software Engineer**, at **Monzo Bank**
Responsible for Infrastructure Security on an AWS-heavy stack
- 06/20 – 11/23 **Senior Backend Software Engineer**, at **Blockchain.com**
part-time,
then Engineer,
then Senior Engineer
Owner of several **JVM** (mainly **Kotlin**) real-time financial services critical for business operation and central to user experience, reporting, and auditing; like ledger-keeping/accounting and indicative pricing. Designing and scaling up **stateful distributed** systems with an event-driven architecture. Reviewing systems' architecture designs and software development methods to cultivate **sustainable engineering practices** and achieve **operational excellence** within the wider company.
- 06/19 – 10/19 **Software Engineer**, at **Emit, Inc.**
intern
Four-person startup with its own smartwatch aiming to provide time-analytics to institutional customers. Provided real-time insights on customer data by developing data processing pipelines and libraries in **Kotlin** and **Python** on top of serverless tech on **AWS (Lambda, DynamoDB, ElasticSearch)**.

EDUCATION

- 2018 – 2022 **MEng Computer Science – First Class Honours**, at **Imperial College London**
Focus on Software Engineering, Distributed Systems, Network and Computer Security, Systems and Data Scalability, Logic-based AI, Type Systems for Programming Languages, Simulation & Modelling. Additional Business School modules include Project Management, Finance & Financial Markets, and Business Strategy.
- 2015-2018 **French Baccalaureate (S-SI) – Highest Honours**, at **French Lycée of Madrid**
High-school diploma with **Engineering Sciences with Further Maths** specialisations, and completed optional Portuguese and Music modules.
Extracurriculars include two Model UNs, Drama, Choir, student representative, competing in the basketball team.

PROJECTS

- see my full portfolio at nico.dcotta.eu*
- AWS (Lambda, DynamoDB, EC2), Kotlin, VueJS** **DJStreamr, collaborative streaming service for DJs**  djstreamr.com
Music synchronisation protocol implemented as a webapp with an event-driven platform architecture which leverages serverless technology.
- Elixir, Paxos** **Multi-Paxos implementation**  [cottand/multi-paxos](https://github.com/cottand/multi-paxos)
Implementation of a variation of the Paxos consensus algorithm (comparable to Raft), as specified in the paper *Paxos Made Moderately Complex*.
- Kotlin, JVM bytecode, ARM11 assembly** **WACC, multiplatform compiler**  [cottand/WACC](https://github.com/cottand/WACC)
Multiplatform compiler from WACC (a toy language) to JVM bytecode and ARM11 64-byte assembly that supports basic constructs like stack-allocated primitives, and heap-allocated arrays and pairs.

TECHNOLOGIES

Proficient in JVM (Kotlin, Java), Gradle
Experience with Go, Python, C, Haskell, Typescript, Elixir
Nomad, Nix + NixOS, AWS (Lambda, DynamoDB EC2, S3, CodeDeploy, API Gateway)
gRPC + protobufs, Kafka, Akka, PostgreSQL, Redis, Cassandra, APM, Docker, React, VueJS
Object-oriented, Functional, Actor-oriented, and Procedural programming.

HOBBIES I enjoy DJing as well as kitesurfing and rock climbing!

LANGUAGES

English - bilingual (C2 certification)
Spanish - native
French - bilingual
Portuguese - advanced level

SKILLS + FEEDBACK

"Pleasant to work with"
"Aware of product quality"
"Knows which battles to pick"
I can google well!